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# (54) CHA-TYPE ZEOLITE MATERIALS AND METHODS FOR THEIR PREPARATION USING CYCLOALKYAMMONIUM COMPOUNDS

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#### (57) ABSTRACT

Aspects of the present invention relate to a process for the preparation of a zeolitic material having a CHA-type framework structure comprising  $\mathrm{YO}_2$  and  $\mathrm{X}_2\mathrm{O}_3$ , wherein said process comprises the steps of:

- providing a mixture comprising one or more sources for YO<sub>2</sub>, one or more sources for X<sub>2</sub>O<sub>3</sub>, and one or more tetraalkylammonium cation R<sup>1</sup>R<sup>2</sup>R<sup>3</sup>R<sup>4</sup>N<sup>+</sup>-containing compounds as structure directing agent;
- (2) crystallizing the mixture obtained in step (1) for obtaining a zeolitic material having a CHA-type framework structure;

wherein Y is a tetravalent element and X is a trivalent element,

wherein  $R^1$ ,  $R^2$ , and  $R^3$  independently from one another stand for alkyl,

wherein R4 stands for cycloalkyl, and

wherein the mixture provided in step (1) does not contain any substantial amount of a source for  $Z_2O_5$ , wherein Z is P, (Continued)

